Skip Counting the Squares

1, 4, 9,

16, 25, 36,

49, 64, 81,

100, 121,

144, 169,

1 196, 225

1, 4, 9,

_____, 25, 36,

49, _____, 81,

100, 121,

_____, 169,

2 196, 225

1, _____, 9,

_____, 25, 36,

49, _____, 81,

_____, 121,

_____, 169,

3 196, 225

1, _____, 9,

_____, 25, _____,

49, _____, 81,

_____, 121,

_____, 169,

4 _____, _____

Squares

12^2 1^2 4
11^2 2^2
10^2 3^2
Square
9^2 4^2
8^2 5^2
7^2 6^2
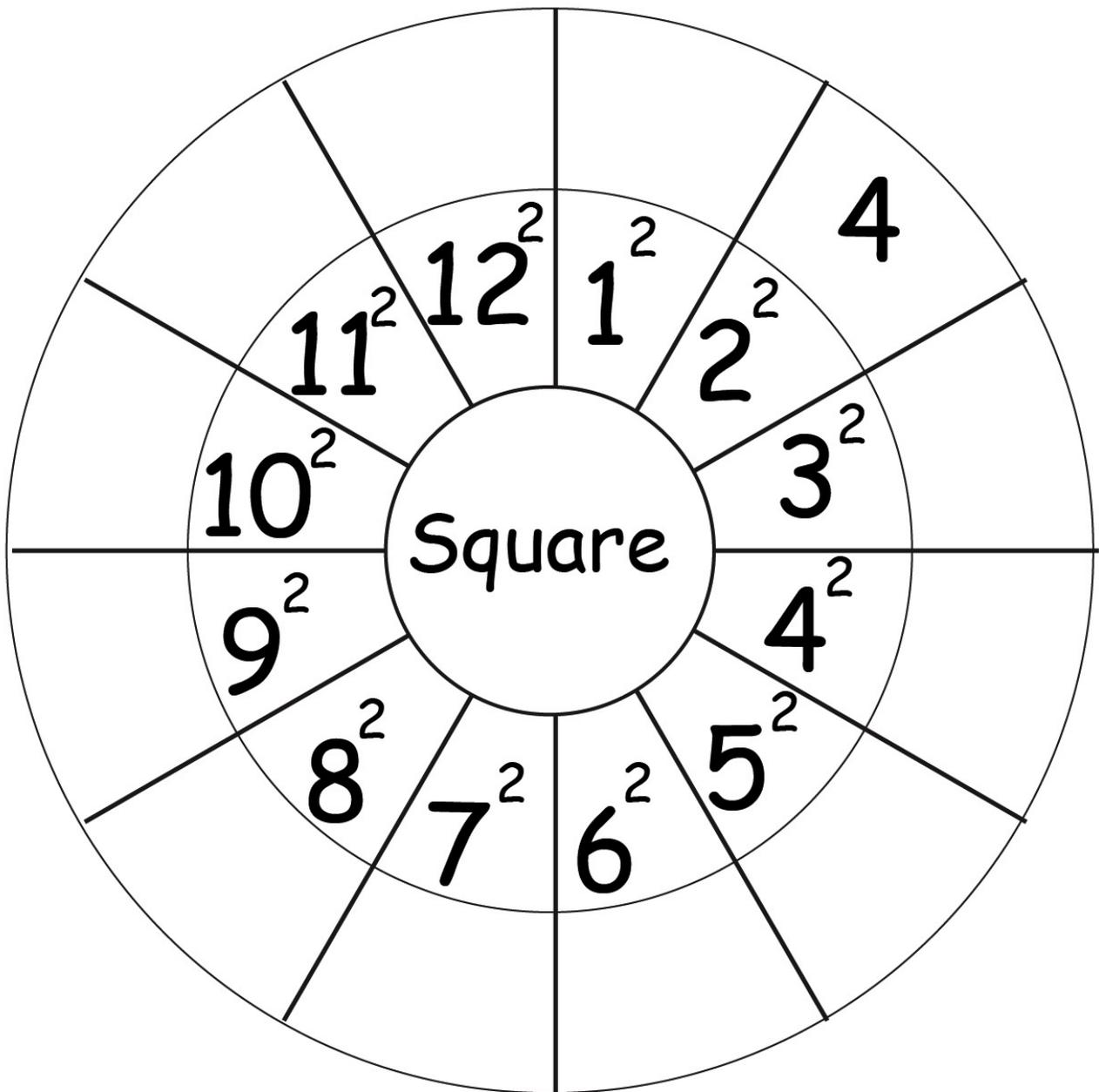
Squares and Square Roots

a.
$$\sqrt{144} = \text{_____}$$

b.
$$\sqrt{81} = \text{_____}$$

c.
$$\sqrt{9} = \text{_____}$$

d.
$$\sqrt{49} = \text{_____}$$

e.
$$\sqrt{100} = \text{_____}$$

f.
$$\sqrt{36} = \text{_____}$$

g.
$$\sqrt{64} = \text{_____}$$

h.
$$\sqrt{16} = \text{_____}$$

i.
$$\sqrt{121} = \text{_____}$$

j.
$$\sqrt{25} = \text{_____}$$

k.
$$\sqrt{1} = \text{_____}$$

l.
$$\sqrt{0} = \text{_____}$$

m.
$$10^2 = \text{_____}$$

n.
$$9^2 = \text{_____}$$

o.
$$5^2 = \text{_____}$$

p.
$$7^2 = \text{_____}$$

o.
$$11^2 = \text{_____}$$

p.
$$6^2 = \text{_____}$$

q.
$$8^2 = \text{_____}$$

r.
$$1^2 = \text{_____}$$

s.
$$0^2 = \text{_____}$$

t.
$$4^2 = \text{_____}$$

u.
$$12^2 = \text{_____}$$

v.
$$3^2 = \text{_____}$$

Skip Counting the Cubes

1, 8,

27, 64,

125, 216,

343, 512,

729,

1 1000

1, _____,

27, _____,

125, _____,

_____, 512,

729,

3 _____

1, 8,

27, _____,

125, 216,

_____, 512,

729,

2 _____

1, _____,

_____, _____,

125, _____,

_____, 512,

729,

4 _____

Cubes

12^3 1^3 8 2^3 3^3 11^3 4^3 10^3 5^3 9^3 8^3 7^3 6^3
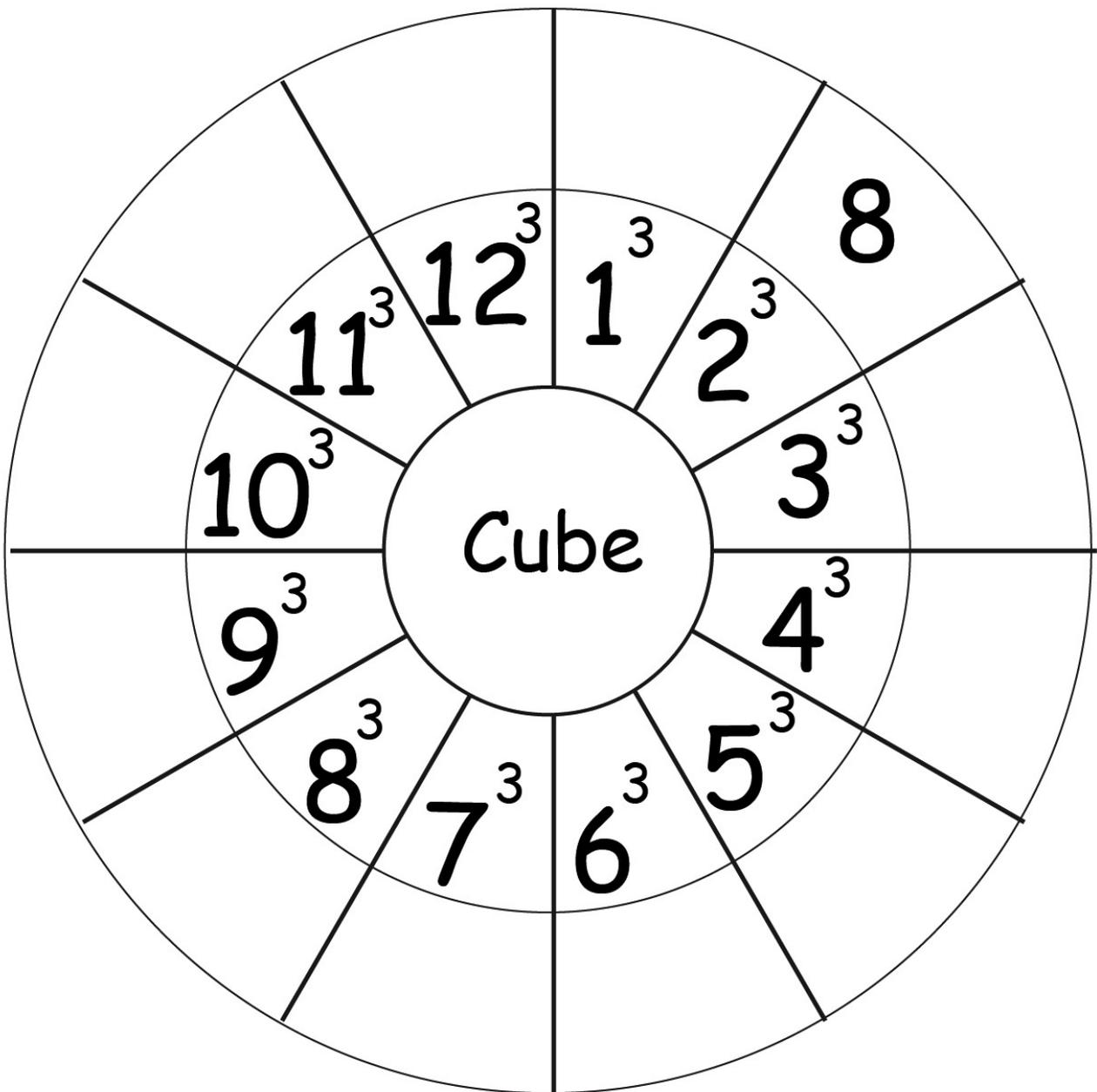
Cube

Evaluate the Squares and Cubes

1) $(10)^3$ = _____

2) $(9)^3$ = _____

3) $(8)^2$ = _____

4) $(2)^3$ = _____

5) $(1)^3$ = _____

6) $(6)^3$ = _____

7) $(5)^2$ = _____

8) $(3)^2$ = _____

9) $(2)^3$ = _____

10) $(3)^3$ = _____

11) $(8)^2$ = _____

12) $(10)^2$ = _____

13) $(4)^3$ = _____

14) $(2)^2$ = _____

15) $(7)^2$ = _____

16) $(3)^3$ = _____

17) $(4)^2$ = _____

18) $(12)^2$ = _____

19) $(3)^3$ = _____

20) $(9)^2$ = _____

Perfect Squares and Cubes Operations

Write the square or cube root for each number.

1) $\sqrt{36}$ = _____

2) $\sqrt[3]{1}$ = _____

3) $\sqrt{25}$ = _____

4) $\sqrt{16}$ = _____

5) $\sqrt[3]{343}$ = _____

6) $\sqrt{81}$ = _____

Write the square root for each number.

7) $\sqrt{64}$ = _____

8) $\sqrt{36}$ = _____

9) $\sqrt{9}$ = _____

10) $\sqrt{49}$ = _____

11) $\sqrt{1}$ = _____

12) $\sqrt{100}$ = _____

Write the cube root for each number.

13) $\sqrt[3]{343}$ = _____

14) $\sqrt[3]{64}$ = _____

15) $\sqrt[3]{1000}$ = _____

16) $\sqrt[3]{125}$ = _____

17) $\sqrt[3]{216}$ = _____

18) $\sqrt[3]{512}$ = _____

Name: _____

Math Unit 12

Match each item on the left with the correct item on the right.

1. 1 foot   •   • 1.6 kilometers

2. 3 feet   •   • 1 yard

3. 5280 feet   •   • 12 inches

4. 1 mile   •   • 1 mile

Name: _____

Yards, Feet, and Inches

Memorize this: There are 12 inches in a foot.

There are 3 feet in a yard.

There are 36 inches in a yard.

Complete the table. Then use the information in the table to fill in the blank lines below.

1 yard	2 yards	3 yards	4 yards	5 yards
3 feet			12 feet	
36 inches	72 inches	108 inches		

1.   ____ yards   =   6 feet   =   ____ inches

2.   4 yards   =   ____ feet   =   ____ inches

3.   180 _____ =   5 _____ =   ____ feet

4.   3 _____ =   1 _____ =   36 _____

5.   9 feet   =   108 _____ =   3 _____

★   6 yards   =   ____ feet   =   ____ inches

Name: _____

In and Out Boxes: Measurement
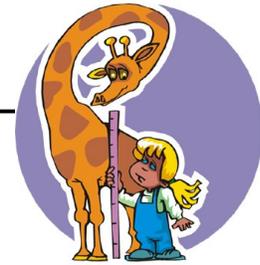
Complete the tables below and answer the questions that follow.

yards	1	4	7	
feet				27

feet	1		3	10
inches	12	24		

rule: multiply by 3

rule:

a.   How many feet
     are in 1 yard?   _____

b.   How many feet
     are in 36 inches?   _____

c.   How many yards
     are in 27 feet?   _____

d.   How many inches
     are in 3 feet?   _____

★.   How many feet
     are in 5 yards?   _____

★.   How many feet
     are in 48 inches?   _____

Use the table below to answer the questions.

yards	1	2	3	4	5	6
inches	36	**?**	108	144	180	216

e.   How many inches are in 5 yards?   _____

f.   How many inches are in 2 yards?   _____

g.   On the lines below, describe the rule you can use to find the number of inches
     in a given number of yards.

     _____

     _____

     _____

Name _____ Date _____

U. S. Length Conversions
## Inches/Feet

There are 12 inches in 1 foot.
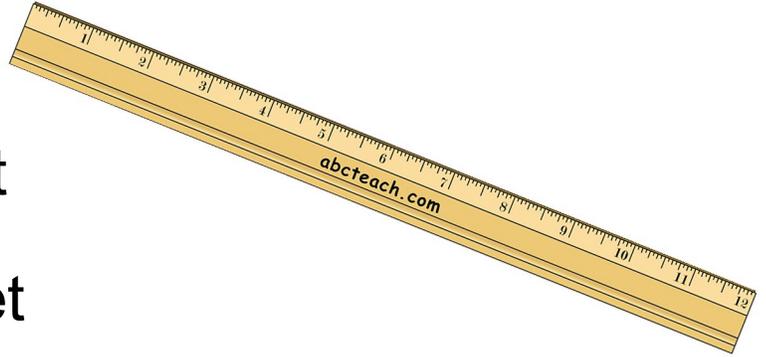
1. 36 inches = _____feet

2. _____ inches = 14 feet

3. _____ inches = 5 feet

4. 144 inches = _____ feet

5. _____ inches = 27 feet

6. 1,416 inches = _____ feet

7. _____ inches = 365 feet

8. 228 inches = _____ feet

9. 444 inches = _____ feet

10. _____ inches = 20 feet

Name _____ Date _____

U. S. Length Conversions
Feet/Yards

There are 3 feet in 1 yard.

1. 24 feet = _____ yards

2. _____ feet = 7 yards

3. _____ feet = 15 yards

4. 33 feet = _____ yards

5. _____ feet = 25 yards

6. 120 feet = _____ yards

7. _____ feet = 60 yards

8. 1,245 feet = _____ yards

9. 990 feet = _____ yards

10. _____ feet = 118 yards

Name _____ Date _____
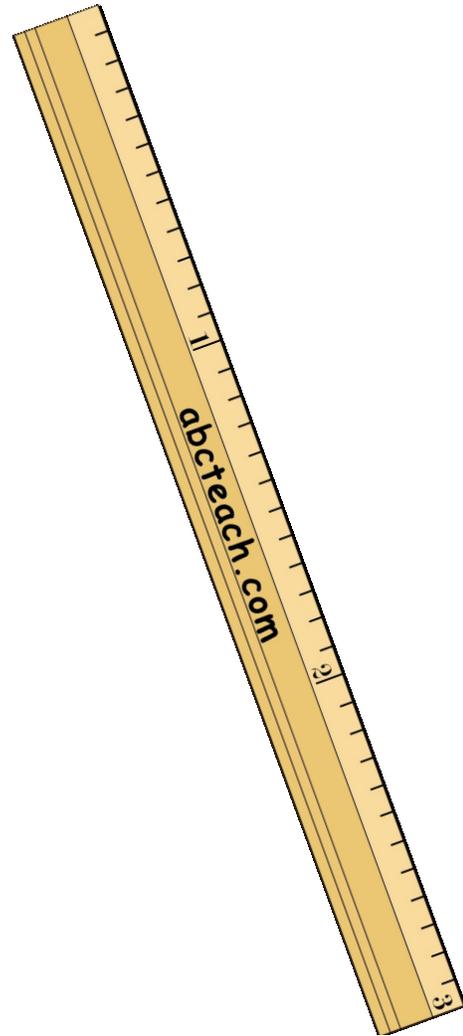
U. S. Length Conversions
Yards/Miles

There 1,760 yards in 1 mile.
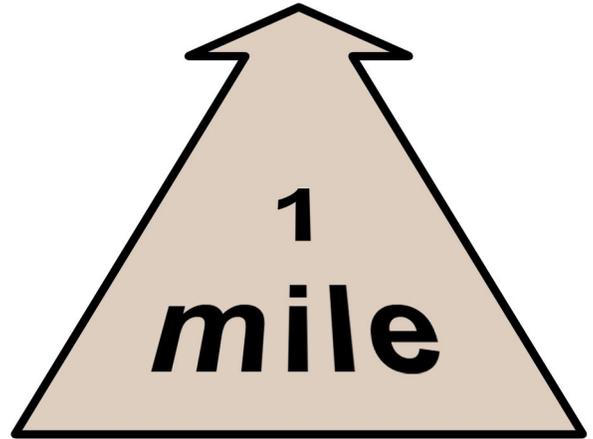
1. _____ yards = .25 mile

2. _____ yards = 7 miles

3. 176 yards = _____ mile

4. 580 yards = _____ mile

5. _____ yards = 1 mile

6. 5,280 yards = _____ miles

7. 19,360 yards = _____ miles

8. _____ yards = .50 mile

9. 1,320 yards = _____ mile

10. _____ yards = 12 miles

Name: _____

Math Unit 13

Match each item on the left with the correct item on the right.

1. 1 pound   •   •   1000 grams

2. 2000 pounds   •   •   1 ton

3. 1 kilogram   •   •   2.2 pounds

4. 1 kilogram   •   •   16 ounces

Converting Weight
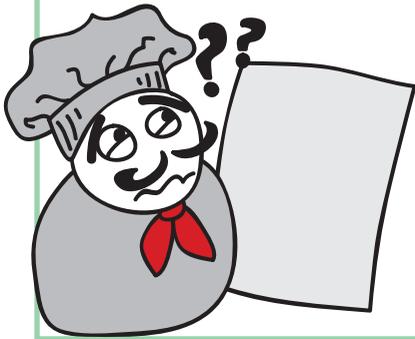
Chef John picked up a few amazing cookbooks from France during his vacation. When he got back to his work, he realized, he didn't understand the measurements! Confused, Chef John realized that the recipes use the **metric system**. For John to read his recipe books, he has to make a few conversions from **kilograms** to **pounds**.

Help Tim with a few weight conversion exercises, so he can start buying some ingredients for his restaurant!

Example
Use the table below to convert weight from kilograms (kg) to pounds (lbs)

20 kg × **2.2046** = **44.092 lbs** = **44.1 lbs**

| Weight in Kilograms | Multiply 2.2046 to convert kg to lbs | Weight in Pounds | Round to the nearest decimal |

1) 5 kg   =

2) 2 kg   =

3) 1.5 kg   =

4) 3.5 kg   =

5) 13 kg   =

6) 17.5 kg =

7) 21 kg   =

8) 24.5 kg =

9) 30 kg   =

10) 28.3 kg =

11) 32.6 kg =

12) 39.5 kg =

13) 43 kg   =

14) 50 kg   =

Name: _____

Grams and Kilograms

A **gram** (g) is used to measure the weight or mass of very light objects.
A small paperclip weighs about a gram.

A **kilogram** (kg) is used to measure the weight or mass of heavier objects.
A one-liter bottle of water weighs about a kilogram.

1 kilogram = 1,000 grams

3 kg = _____ g   6,000 g = _____ kg

3 kg x 1,000 = 3,000 g   6,000 ÷ 1,000 = 6 kg

3 kg = 3,000 g   6,000 g = 6 kg

1. A squirrel weighs about....   **a.** 10 grams   **b.** 100 grams   **c.** 1 kilogram

2. A cell phone weighs about... **a.** 1 gram   **b.** 120 grams   **c.** 2 kilograms

3. A watermelon weighs about... **a.** 500 grams   **b.** 2 kilograms   **c.** 13 kilograms

4. 8 kg = _____ g   **5.** 2,000 g = _____ kg

6. 5,000 g = _____ kg   **7.** 7 kg = _____ g

8. 10,000 g = _____ kg   **9.** 30 kg = _____ g

10. Jan's cat weighs 4 kg. Carl's cat weighs 2,900 grams. Whose cat is heavier?
Explain.

_____

_____

_____

Name: _____

Weight
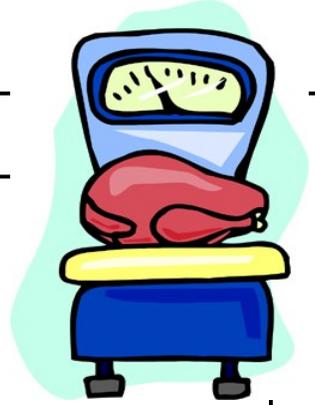
1 pound = 16 ounces   Abbreviation for pounds = lbs.

1 ton = 2,000 pounds   Abbreviation for ounces = oz.

Abbreviation for tons = T

---

3 lbs. = _____ oz.   3 T = _____ lbs.

16 oz. + 16 oz. + 16 oz. = 48 oz.   2,000 lbs. + 2,000 lbs. + 2,000 lbs. = 6,000 lbs.

3 lbs. = 48 oz.   3 T = 6,000 lbs.

1. 4 lbs. = _____ oz.   **2.** 2 T = _____ lbs.

3. 2 lbs. = _____ oz.   **4.** 5 T = _____ lbs.

5. 5 lbs. = _____ oz.   **6.** 4 T = _____ lbs.

7. Which weighs more: 3 pounds of butter or 60 ounces of butter? Explain.

_____

_____

_____

8. Which weighs more: 2 pounds of bricks or 2 pounds of feathers? Explain.

_____

_____

_____

Name _____ Date _____

Measurement Conversion Word Problems - Weight

1. Ms. Bezel, the jewelry designer, ordered 500 grams of silver, 800 grams of brass, and 700 grams of copper. How many kilograms of metal did she order in all? _____ kilograms	2. Eric has two dogs. He feeds each dog 250 grams of dry food each, twice a day. If he buys a 10-kilogram bag of dry food, how many days will the bag last? _____
3. Mr. Snow bought 90 grams of Christmas candy for each of his 14 grandchildren. How many total kilograms of candy did he buy? _____ kilograms	4. The vet instructed Manuel to give his dog .5 milligrams of medication per 1 kilogram of the dogs weight. His dog weighs 12 kilograms. How much total medication should the dog have? _____ milligrams
5. Sarah purchased 8kg of sugar, 10kg of flour, 500g of cocoa, 225g of pecans, and 275g of coconut. How much do all her groceries weigh in kilograms? _____ kilograms	6. The adult dosage directions for 325mg aspirin tablets reads "take 1 or 2 tablets every 4 hours, not to exceed 12 tablets in 24 hours." In grams, what is the maximum amount of aspirin an adult should take in one day? _____ grams

Name: _____

Math Unit 14

Match each item on the left with the correct item on the right.

1. 1 inch   •   • 1 kilometer

2. 100 centimeters •   • 2.54 centimeters

3. 1000 meters   •   • 1 meter

Name _____ Date _____

Measurement Conversion Word Problems - Length/Distance

1. Zach made a chart to show how many mm his plant grew each week for 7 weeks. Each block equals 5 mm of growth. How tall is the plant? _____ centimeters	2. Susie begins a new walking program with 600 m on the first day. Each day, she will increase her walk by 200 m. How many kilometers will she walk on day 18 of her program? _____ kilometers
3. Trudy wants to surround her garden on all four sides with fencing. Her rectangular garden is 270 cm by 130 cm. How many meters of fencing will she need? _____ meters	4. Jin is training for the 50 meter dash. Each day that he trains, he runs the dash six times. Last week, he trained for four days. This week, he trained for five days. In two weeks, how far has Jin run? _____ kilometers
5. Lu is stringing beads to make a necklace. She is using 30 of the 8 mm beads, 70 of the 4 mm beads, and 40 of the 2 mm beads. How long will her finished necklace be? _____ centimeters	6. Mara is building a wind chime. She needs string in the following lengths: six pieces of 20 cm, 3 pieces of 30 cm and one piece of 40 cm. How much string does she need? _____ meters
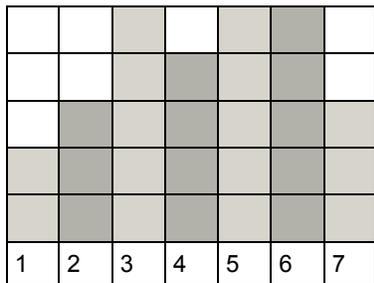
Name: _____   Date: _____

Length Conversion Practice - #4

Round answers to 2 decimal places

10 Millimeters = 1 Centimeter 10 Centimeters = 1 Decimeter
10 Decimeters = 1 Meter   1000 Meters = 1 Kilometer

9 Kilometers = _____ Centimeters

10 Kilometers = _____ Decimeters

69 Decimeters = _____ Kilometers

9 Kilometers = _____ Centimeters

8 Kilometers = _____ Meters

72 Millimeters = _____ Meters

8 Kilometers = _____ Millimeters

10 Kilometers = _____ Centimeters

87 Meters = _____ Kilometers

54 Millimeters = _____ Meters

69 Meters = _____ Kilometers

76 Decimeters = _____ Millimeters

54 Decimeters = _____ Kilometers

Name: _____   Date: _____

Length Conversion Practice - #7

Round answers to 2 decimal places

12 Inches = 1 Foot   3 Feet = 1 Yard
5280 Feet = 1 Mile   2.54 Centimeters = 1 Inch
1.0936 Yards = 1 Meter   10 Millimeters = 1 Centimeter
10 Centimeters = 1 Decimeter 10 Decimeters = 1 Meter
1000 Meters = 1 Kilometer   1.609 Kilometers = 1 Mile

5 Miles = _____ Feet

4 Kilometers = _____ Meters

4 Miles = _____ Decimeters

3 Kilometers = _____ Decimeters

3 Miles = _____ Meters

79 Millimeters = _____ Yards

100 Decimeters = _____ Inches

5 Decimeters = _____ Yards

10 Kilometers = _____ Miles

74 Meters = _____ Miles

6 Miles = _____ Decimeters

Name: _____

Math Unit 15

Match each item on the left with the correct item on the right.

1. 1 tablespoon (tbsp) •   • 30 milliliters (ml)

2. 1 ounce (oz.) •   • 1 liter (l)

3. 1 teaspoon (tsp) •   • 15 milliliters (ml)

4. 1 tablespoon (tbsp) •   • 2 tablespoon (tbsp)

5. 1 ounce (oz) •   • 5 milliliters (ml)

6. 1000 milliliters (ml) •   • 3 teaspoons (tsp)

Name: _____

Convert from or to: oz, tsp or tbsp as requested.

Convert to or from ounces, teaspoons, tablespoons.

1. 30 tsp = _____ fl oz   2. 44 tbsp = _____ tsp

3. 48 tbsp = _____ fl oz   4. 5 tbsp = _____ tsp

5. 6 tbsp = _____ fl oz   6. 36 fl oz = _____ tsp

7. 47 tbsp = _____ fl oz + tbsp   8. 19 tsp = _____ tbsp + tsp

9. 7 tsp = _____ tbsp   10. 21 fl oz = _____ tsp

11. 34 fl oz = _____ tsp   12. 28 fl oz = _____ tsp

13. 5 tsp = _____ fl oz   14. 9 fl oz = _____ tsp

15. 40 fl oz = _____ tsp   16. 6 fl oz = _____ tbsp

Name: _____

Converting Liters and Milliliters

Complete the tables below and answer the questions that follow.

liters	1		9	
milliliters		5,000		30,000

milliliters	4,000			550,000
liters		6	23	

rule: multiply by 1,000

rule: divide by 1,000

a. How many liters
are in 5,000 milliliters?   _____

b. How many milliliters
are in 23 liters?   _____

c. How many milliliters
are in 9 liters?   _____

d. How many liters
are in 550,000 milliliters?   _____

e. How many liters
are in 20,000 milliliters?   _____

f. How many milliliters
are in 100 liters?   _____

g. How many milliliters
are in 11 liters?   _____

h. How many liters
are in 890,000 milliliters?   _____

i. Brenda has a 1 liter bottle of shampoo
that is only half-full. About how many milliliters
of shampoo does she have in the bottle?   _____

j. Mr. Perkins changed the oil in his car. He bought
6 liters of oil. He put 4,500 mL in his car. How many
milliliters of oil did he have left?   _____

Name _____ Date _____

Measurement Conversion Word Problems - Liquid Volume

1. Mrs. Smith is planning a class party for 18 students. She will be serving apple juice. If she serves 250 ml per student, how many liters of juice will she need to buy? _____ liters	2. Mr. Green's lawn mower holds 600 milliliters of gasoline in the tank. He just filled his 6 liter gas can at the station. How many times will he be able to fill his lawn mower tank from the gas can? _____
3. While Justin is in training, he is to drink 500 milliliters of water 4 times per day. How many liters of water will that be for one week? _____ liters	4. A punch recipe calls for 3 liters ginger ale, 1.5 liters tropical fruit juice, and 500 milliliters pineapple juice. How much punch will the recipe make? _____ liters
5. Sean has 3 2-liter bottles of soda. If he divides the soda equally between himself and his 11 friends, how much soda will each person have? _____ milliliters	6. Ann is baking 2 cakes, brownies, cookies and 2 pies for the bake sale. The recipes call for milk in the following amounts: 230 ml, 50 ml, 120 ml, 200 ml, 300 ml, and 100 ml. How much milk does she need in all? _____ liters

Name: _____

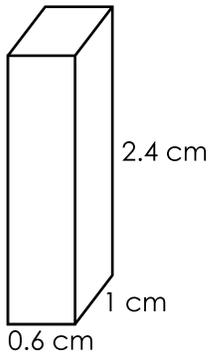## Math Unit 16-18

Match each item on the left with the correct item on the right.

1. The perimeter of a polygon •   • 1/2 its base times its height

2. The area of a rectangle •   • Right triangle, isosceles triangle, equilateral triangle

3. The area of a square •   • one of its sides squared

4. The volume of a rectangular solid •   • 2 times Pi times its radius

5. The area of a triangle •   • Pi times its radius squared

6. Three types of triangles •   • 3.14

7. Pi •   • The sum of the length of its sides

8. The circumference of a circle •   • its length time its width times its height

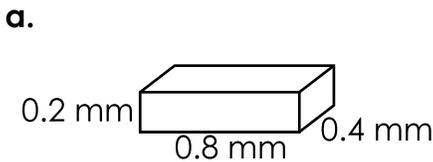9. The area of a circle •   • Its base times its height

Name: _____

Perimeter

Find the perimeter of each polygon.

a.
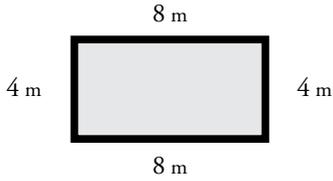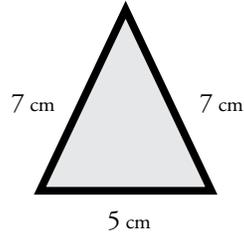
8 m
4 m   4 m
8 m

Perimeter = _____

b.

7 cm   7 cm
5 cm

Perimeter = _____

c.

9 mm
9 mm   9 mm
9 mm

Perimeter = _____

d.

8 km
4 km   4 km
3 km

Perimeter = _____

e.

3 m
3 m   3 m
3 m   3 m
3 m

Perimeter = _____

f.

4 cm
6 cm   6 cm
4 cm

Perimeter = _____

g.

5 m
8 m   8 m
5 m

Perimeter = _____

h.

4 km   4 km
4 km   4 km

Perimeter = _____

i.

7 cm
1 cm   1 cm
3 cm   3 cm
1 cm   1 cm
7 cm
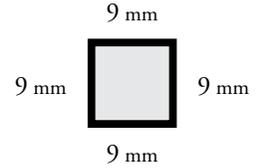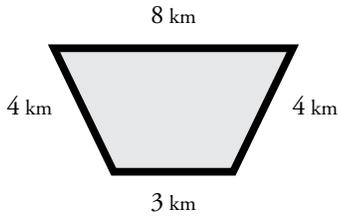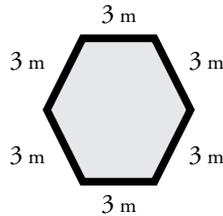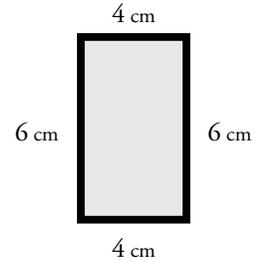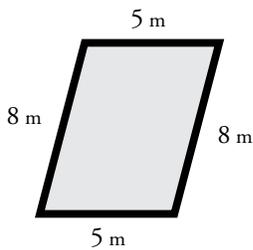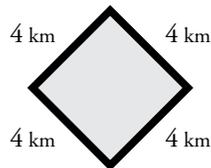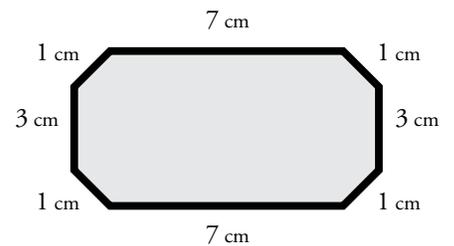
Perimeter = _____

Bonus Box: Write the names of the polygons pictured above.

Name: _____

Perimeter of a Polygon

Find the perimeter of each shape by adding the lengths of each side. Be sure to include the units in your answer.

a.

4 cm

6 cm

5 cm

_____

b.

9 ft   9 ft

9 ft   9 ft

_____

c.

5 in.

7 in.   7 in.

8 in.   8 in.

_____

d.

12 mm

10 mm

10 mm

12 mm

_____

e.

4 km

2 km

3 km

4 km

_____

f.

6 ft   3 ft

4 ft   4 ft

8 ft

_____

g.

7 cm

15 cm

10 cm

_____

h.

11 in.

9 in.   9 in.

11 in.

_____

i.

2m

2m   2m

2m   2m

2m

_____
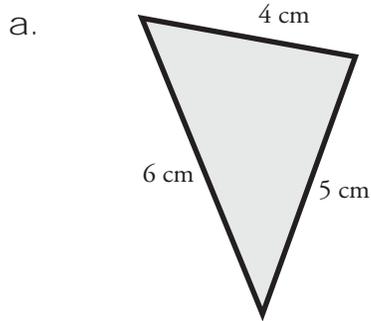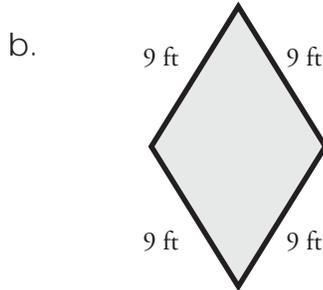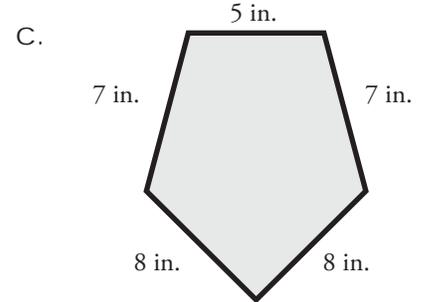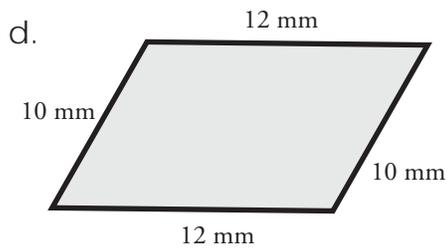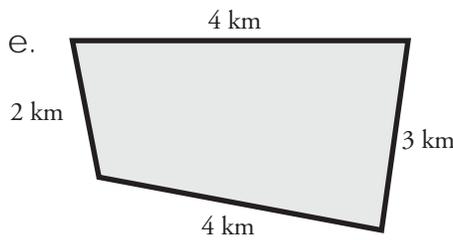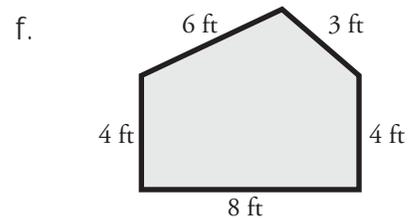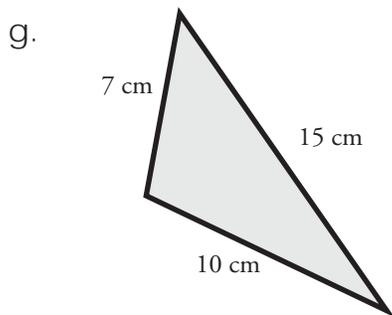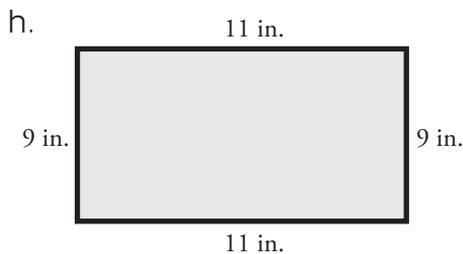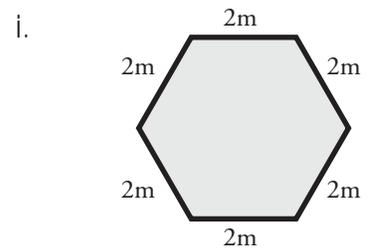
Name: _____

Area of a Rectangle

To find the area of a rectangle, multiply the length by the width.

8 m

example:

4 m
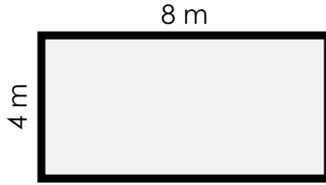
area = 4 m x 8 m = **32 square meters**

Find the area of each rectangle by multiplying

a. 6 km

4 km

area = _____

b. 3 cm

6 cm

area = _____

c. 6 m

5 m

area = _____

d. 1 km

7 km

area = _____

e. 11 cm

3 cm

area = _____

f. 12 cm

12 cm

area = _____

g. 7 m

6 m

area = _____

h. 4 km

2 km

area = _____

i. 9 m

12 m
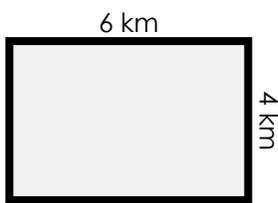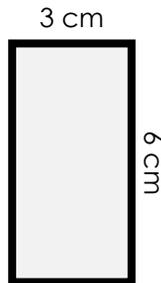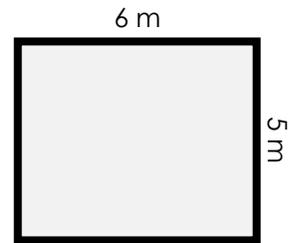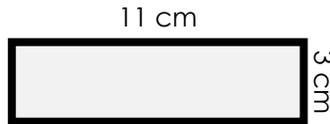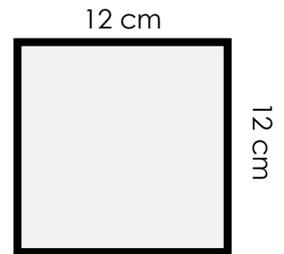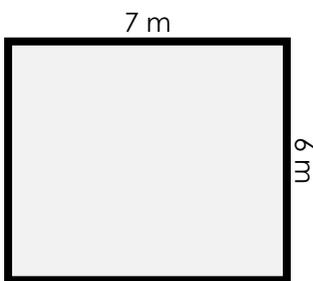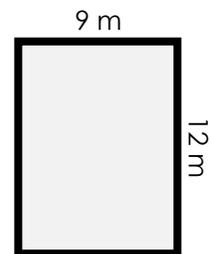
area = _____

Name: _____

Areas of Rectangles

Find the areas of the rectangles. Be sure to include the units in your answer.

9 cm   2 cm

8 m   8 m

4 km   11 km
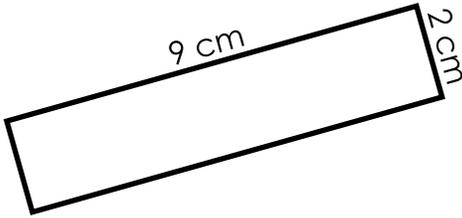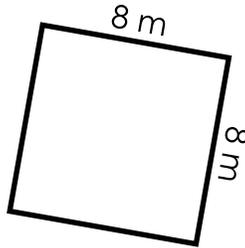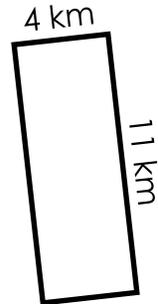
A = _____ A = _____ A = _____

Find the lengths of the unknown sides. Be sure to include the units in your answer.

4 mm c

21 m a

7 cm t

A = 36 mm² A = 21 m² A = 49 cm²
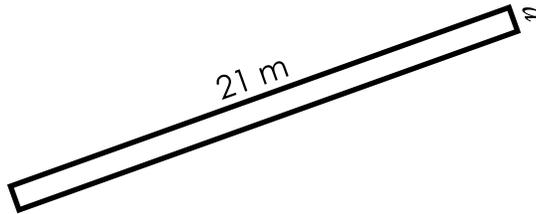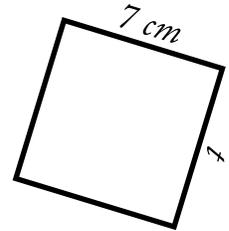
Side c = _____   Side a = _____   Side t = _____

A rectangle has a width of 20 m and an area of 60 m.
What is the length of the rectangle?   _____

A rectangle has an area of 36 mm². All of the sides
are the same length.
What is the length of a single side?   _____

Math Unit 16-18

Match each item on the left with the correct item on the right.

1. The perimeter of a polygon •   • 1/2 its base times its height

2. The area of a rectangle •   • Right triangle, isosceles triangle, equilateral triangle

3. The area of a square •   • one of its sides squared

4. The volume of a rectangular solid •   • 2 times Pi times its radius

5. The area of a triangle •   • Pi times its radius squared

6. Three types of triangles •   • 3.14

7. Pi •   • The sum of the length of its sides

8. The circumference of a circle •   • its length time its width times its height

9. The area of a circle •   • Its base times its height

Volume of a Rectangular Prism

To find the volume of a rectangular prism, multiply the length by the width by the height.

$$V = l \times w \times h$$

$$V = 0.6 \text{ cm} \times 1 \text{ cm} \times 2.4 \text{ cm}$$

$$V = 1.44 \text{ cm}^3$$

2.4 cm
1 cm
0.6 cm

Calculate the volume of each rectangular prism. Be sure to include units in your answer.

a.

0.2 mm
0.8 mm
0.4 mm

V = _____

b.

16 m
16 m
12.4 m

V = _____

c.

0.6 km
0.6 km
0.6 km

V = _____

d.

15 cm
15.5 cm
9.2 cm

V = _____

e.

1 mm
2 mm
0.8 mm

V = _____

f.

6.3 m
36 m
6.3 m

V = _____

g.

0.2 km
1.4 km
1.4 km

V = _____

h.

13 cm
9.5 cm
9.2 cm

V = _____

i.

2.7 m
2.7 m
2.7 m
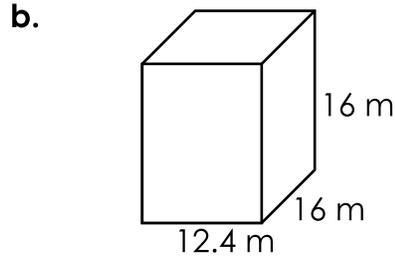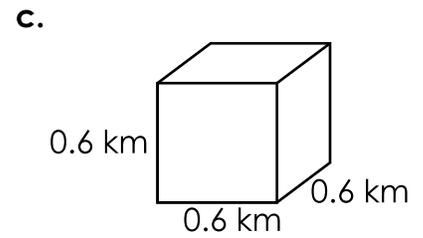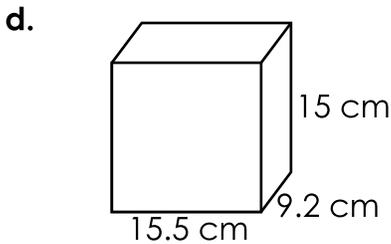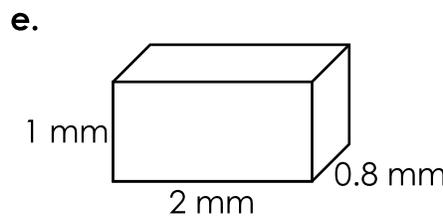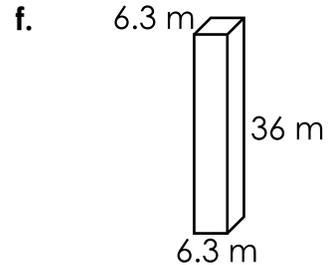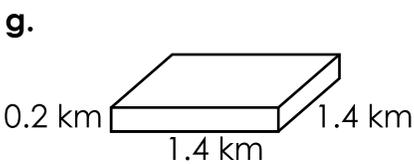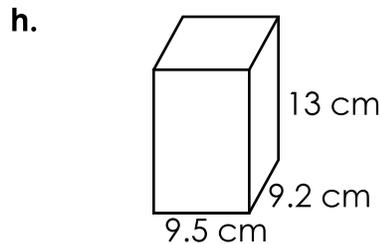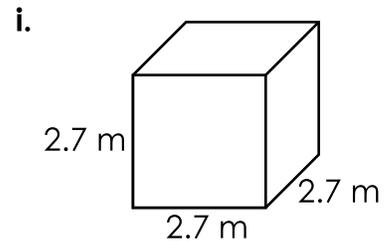
V = _____

Name: _____

Area of a Triangle

To find the area of a triangle, use the formula **area= $\frac{1}{2}$ x base x height** or **A= $\frac{1}{2}$ x *b* x *h***.

example:

4 cm

7 cm
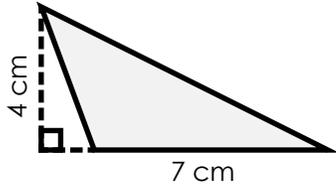
$A= \frac{1}{2}$ x *b* x *h*

base = 7 cm

height = 4 cm

$A= \frac{1}{2}$ x 7 cm x 4 cm

$A= \frac{1}{2}$ x 28 cm^2

A= 14 cm^2

Find the area of each triangle.

a.

8 m

6 m

area = _____

b.

8 mm

11 mm

area = _____

c.

17 cm

10 cm

area = _____

d.

9 km

16 km

area = _____

e.

14 m

8 m

area = _____

f.

20 cm

20 cm
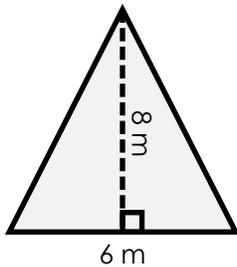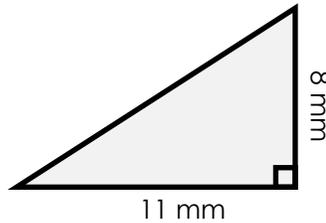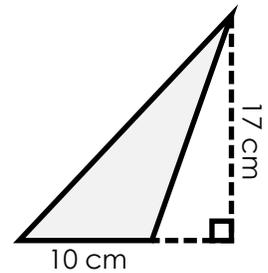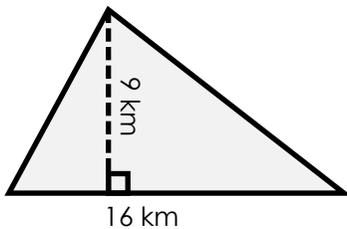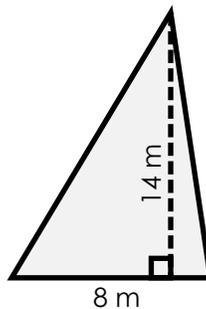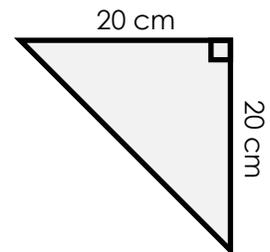
area = _____

Find the area of a triangle using the base and height measurements.

g.
   b = 14 meters
   h = 20 meters

h.
   b = 10 centimeters
   h = 15 centimeters

i.
   b = 7 kilometers
   h = 22 kilometers

area = _____

area = _____

area = _____

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Name: _____

Area of Rectangles & Triangles

Area of a Triangle
½ x (b x h) = A
To find the area of a triangle,
multiply **½ x base x height**.

Area of a Rectangle
l x w = A
To find the area of a rectangle,
multiply **length x width**.
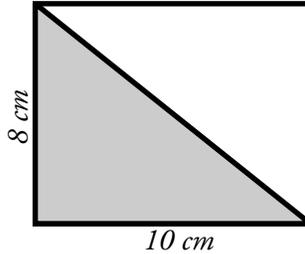
Area of the shaded triangle:
b = 10 cm
h = 8 cm
½ x 10 cm x 8 cm = 40 cm^2

Area of the rectangle:
l = 10 cm
w = 8 cm
10 cm x 8 cm = 80 cm^2

8 cm

10 cm

Find the area of each rectangle and shaded triangle.

a.

4 cm
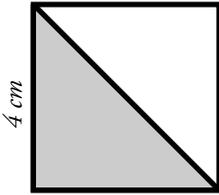
area of the square = _____

area of the triangle = _____

b.

10 ft

3 ft

area of the rectangle = _____

area of the triangle = _____

c.

6 km

8 km
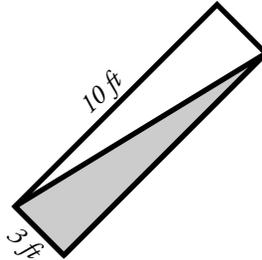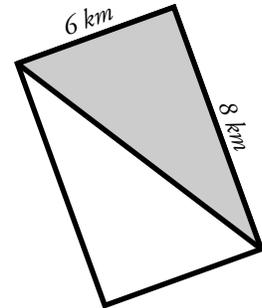
area of the rectangle = _____

area of the triangle = _____

d.

3 in.

6 in.
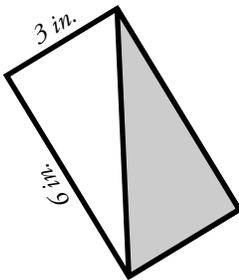
area of the rectangle = _____

area of the triangle = _____

e.

11 mm

4 mm
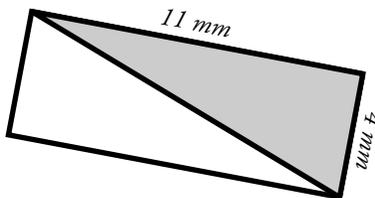
area of the rectangle = _____

area of the triangle = _____

f.

7 mi

4 mi
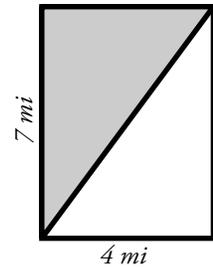
area of the rectangle = _____

area of the triangle = _____

Challenge: Find the area of the polygon. Use the back if you need work space.

6 m

6 m

8 m

8 m

7 m

_____

TRIANGLE FAMILY TREE

Triangles
3-sided polygon

Right
exactly 1 right angle

Scalene
3 sides of different length

Isosceles
at least 2 sides same length

Obtuse
exactly 1 obtuse angle

Scalene
3 sides of different length

Isosceles
at least 2 sides same length

Acute
3 acute angles

Scalene
3 sides of different length

Isosceles
at least 2 sides same length

Equilateral
all 3 sides are equal length

Name: _____

Math Unit 16-18

Match each item on the left with the correct item on the right.

1. The perimeter of a polygon •
2. The area of a rectangle •
3. The area of a square •
4. The volume of a rectangular solid •
5. The area of a triangle •
6. Three types of triangles •
7. Pi •
8. The circumference of a circle •
9. The area of a circle •

• 1/2 its base times its height

• Right triangle, isosceles triangle, equilateral triangle

• one of its sides squared

• 2 times Pi times its radius

• Pi times its radius squared

• 3.14

• The sum of the length of its sides

• its length time its width times its height

• Its base times its height

Name: _____

Circumference of a Circle

To find the circumference of a circle, use the formula **pi x diameter = circumference**. This formula is often written as $C = \pi \times d$.
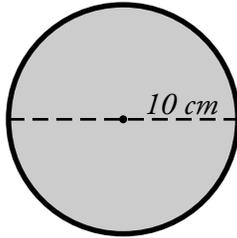
The circle pictured here has a diameter of 10 cm.
d = 10 cm
$\pi \approx 3.14$
10 cm x 3.14 = 31.4 cm

10 cm
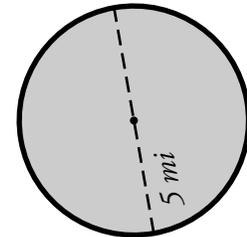
Find the circumference of each circle. Use 3.14 for pi.

a.

6 cm

_____

b.

7 m

_____

c.

4 km

_____

d.

9 in.

_____

e.

11 mm

_____

f.

5 mi

_____
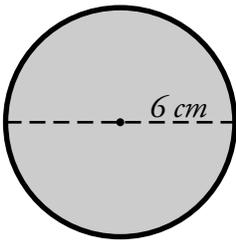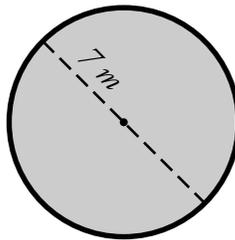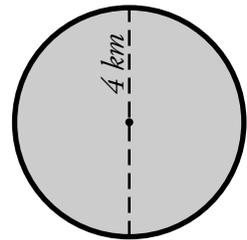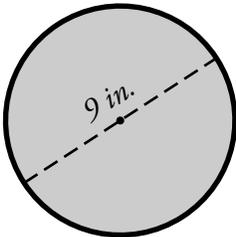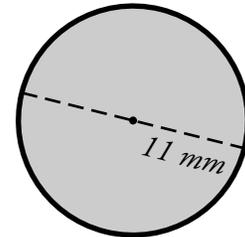
g. Karla and Jeremy have a cicular pool with a diameter of 12 feet. What is the circumference of the pool?

_____

Name: _____

Area of a Circle

To find the area of a circle, use the formula **pi x radius² = area**.
This formula is often written as $A = \pi r^2$.
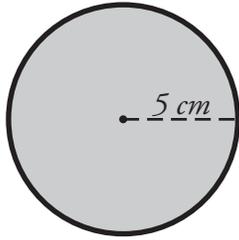
The circle pictured here has a radius of 5 cm.
r = 5 cm
$\pi \approx 3.14$
A = 3.14 x (5 cm x 5 cm)
A = 3.14 x 25 cm²
A = 78.50 cm²

5 cm

Find the area of each circle. Use 3.14 for pi.

a.

12 cm

_____

b.

3 m

_____

c.

6 km

_____

d.

7 in.

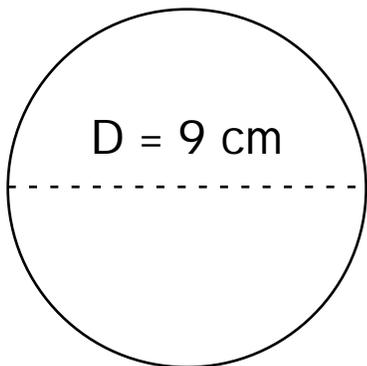_____

e.

9 mm

_____

f.

10 mi

_____
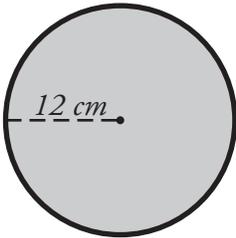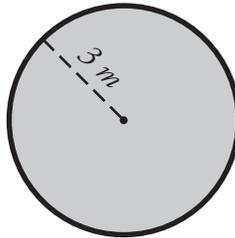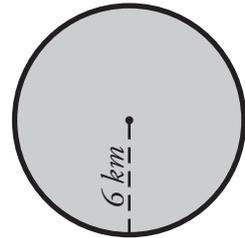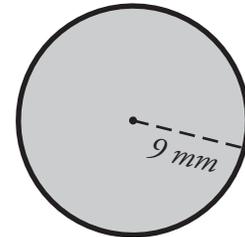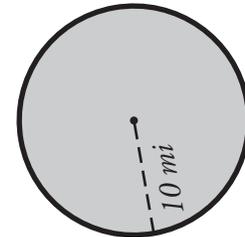
g. Kaylee and Rory have a circular swimming
pool. The pool has a cover that fits snuggly
over the top of it. If the radius of the pool is
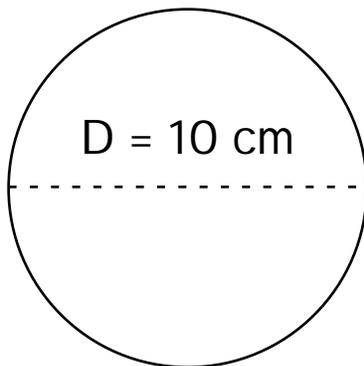11 ft, what is the surface area of the cover?

_____

Name: _____   Date: _____
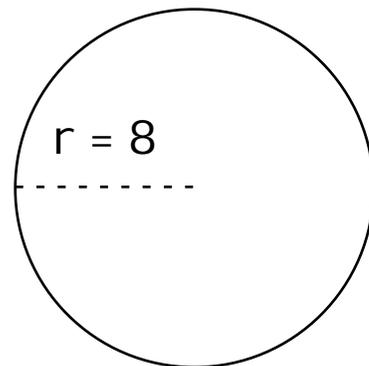
Calculate Area Practice - Page 1

Calculate the area.

D = 9 cm

D = 10 cm

r = 8

Area = _____   Area = _____   Area = _____

r = 1 ft

r = 5 in

D = 4 cm
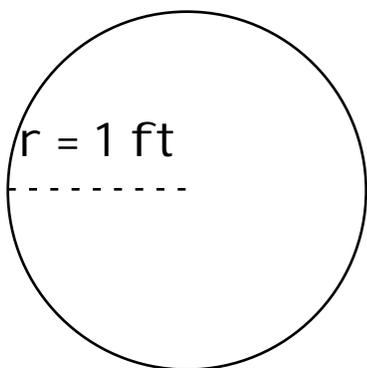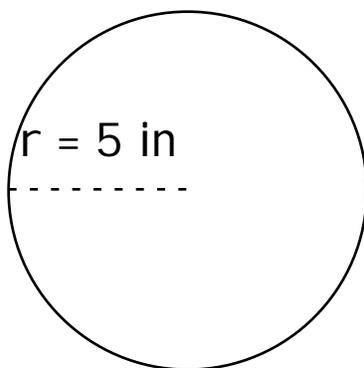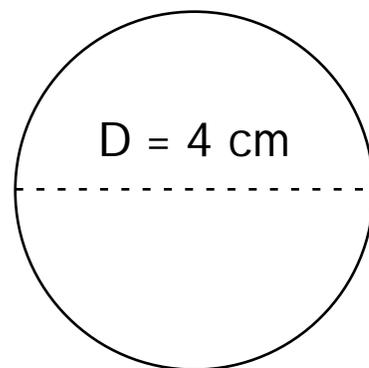
Area = _____   Area = _____   Area = _____

Area: Pi (3.14) x the radius (r) squared
Diameter = radius x 2